

# April 2021 Med Tips

**Don't miss out on our upcoming Virtual Service Schools!**

## CAIRE Service School Training Webinars 2021

CAIRE offers Virtual Service Schools covering both LOX and Concentrator lines.

Each class is a comprehensive program that focuses on the technical and service aspects of the CAIRE family products. Class time is divided between lecture and hands-on workshops. The seminars will help the student develop a better understanding of how liquid oxygen equipment or concentrators work, how to identify the symptoms and causes of potential problems and how to use the technical information that is available in the Technical Manuals. Registration for CAIRE's Service Schools is mandatory. Registration forms must be received two weeks prior to the start of the class in order to guarantee availability and materials.

| Type | Language | Location            | Training Dates | Registration by |
|------|----------|---------------------|----------------|-----------------|
| CONC | English  | Ball Ground, GA USA | May 3-5        | April 19        |
| LOX  | English  | Ball Ground, GA USA | May 6          | April 22        |
| LOX  | English  | Wokingham, UK       | May 12         | April 28        |
| CONC | English  | Wokingham, UK       | May 18-20      | May 4           |
| LOX  | French   | Toulouse, France    | June 1         | May 15          |
| CONC | Italian  | Padova, Italy       | June 8-9       | May 25          |
| CONC | German   | Langenfeld, Germany | June 15-17     | June 1          |
| CONC | English  | Ball Ground, GA USA | August 16-18   | August 2        |
| LOX  | English  | Ball Ground, GA USA | August 19      | August 5        |
| LOX  | German   | Langenfeld, Germany | September 15   | September 1     |
| LOX  | Italian  | Padova, Italy       | October 19-20  | October 5       |
| LOX  | English  | Ball Ground, GA USA | November 11    | October 28      |
| CONC | English  | Ball Ground, GA USA | November 8-10  | October 25      |
| CONC | English  | Wokingham, UK       | November 16-18 | November 2      |

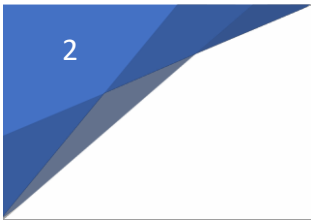
**Table 1 - Details of upcoming training.**

### Concentrator Service School Topics include:

- Concentrator hazards and safety precautions
- Principles of pressure, flow and saturation
- Functions of the major components of a portable/stationary concentrator
- Theory of operation
- Set up and use of test equipment
- Troubleshooting, repair and performance verification/testing procedures

### LOX Service School Topics include:

- Liquid oxygen (LOX) hazards and safety precautions
- Principles of pressure, flow and liquid oxygen saturation
- Functions of the major components of a liquid oxygen system
- HELIOS™ system theory of operation
- Reservoir and portable filling procedures
- Set up and use of test equipment



Please submit your registrations forms no later than the dates in Table 1 above. If you are interested in the service schools mentioned above, and it is passed the registration date please reach out to the registration emails below. Depending on safety and travel restrictions due to COVID-19, CAIRE may at any time change the location of the training from virtual to in-person.

To register for Service School, please email:

[Techservice.global@caireinc.com](mailto:Techservice.global@caireinc.com) for USA Training or [jim.gibson@caireinc.com](mailto:jim.gibson@caireinc.com) for European Training.

## PRODUCT UPDATES

### Availability of Spare Flow Control Valves, Secondary Relief Valves, Manifolds, and Economizers

This bulletin is meant to clarify the service part usage for previous design and current design liquid oxygen portables and reservoirs. Refer to the tables below for the appropriate service part for a given device, and the example figures for previous vs. current parts.

Table 1: Portables

| Current Design<br>(manufactured<br>after<br>1/27/2020)<br>Beginning S/N<br>CBB3120041085 | Previous Design<br>(manufactured<br>before<br>1/27/2020) | Type Valve                    | Model                        | Notes     |
|--|--|-------------------------------|------------------------------|-----------|
| <b>Flow Control Valves</b>   |  |                               |                              |           |
| 11014539TS   | 11014521T  | FCV 20 PSI - 6 LPM            | Sprint/Stroller<br>W/Meter   |           |
| 14812860TS   | 14034703T  | FCV 20 PSI - 15 LPM           | Hi Flow Stroller<br>W/Meter  |           |
| 21366017S  | 14700235T  | FCV 20 PSI - 2 LPM            | Sprint/Stroller<br>W/Meter   | Pediatric |
| 11014539TS   | 11014539TS   | FCV 20 PSI - 6LPM             | Sprint/Stroller<br>W/Scale   |           |
| 14812860TS   | 14812860TS   | FCV 20 PSI - 15 LPM           | Hi Flow Stroller<br>W/Scale  |           |
| 14700235T  | 14700235T  | FCV 20 PSI - 2 LPM            | Sprint/Stroller<br>W/Scale   | Pediatric |
| <b>Secondary Relief Valves</b>   |  |                               |                              |           |
| 10491253T  | 13110225   | SRV 30 psi new/ 65<br>psi old | Hi Flow Stroller             |           |
| <b>Manifolds</b>   |  |                               |                              |           |
| 21495020S  | 10564619S  | Manifold Assy 1.2L SF<br>SVCE | Stroller/Hi Flow<br>Stroller |           |

|           |           |  |                              |  |
|-----------|-----------|--|------------------------------|--|
| 21495021S | 10812918S | Manifold Assy 1.2L<br>W/Auto Close VV,<br>SVCE | Stroller/Hi Flow<br>Stroller |  |
| 21495022S | 10812900S | Manifold Assy 1.2L,<br>Germany, SVCE           | Stroller/Hi Flow<br>Stroller |  |
| 21495026S | 10597787S | Manifold Assy 1.2L<br>TF, SVCE                 | Stroller/Hi Flow<br>Stroller |  |

Table 2: Liberator

| Current Design<br>(manufactured<br>after 4/1/2020)<br>Beginning S/N<br>CBB302014001 | Previous Design<br>(manufactured<br>before<br>4/1/2020) | Type Valve                      | Model              | Notes   |
|---|---|---------------------------------|--------------------|---|
| <b>Flow Control Valves</b>  |   |                                 |                    |   |
| 21449808S   | 13110145  | FCV 20 PSI - 15 LPM             | Liberator - 20 PSI | 16 Pos. Gen 4   |
| 21449806S   | 13110153  | FCV 50 PSI - 15 LPM             | Liberator - 50 PSI | 16 Pos. Gen 4   |
| 21494787S   | 14700243T   | FCV 20 PSI - 2 LPM              | Liberator - 20 PSI | Pediatric   |
| N/A   | 10480511T   | FCV 20 PSI - 6 LPM              | Liberator - 20 PSI | 12 Pos. Gen 3   |
| N/A   | 11018986T   | FCV 20 PSI - 15 LPM             | Liberator - 20 PSI | 12 Pos. Gen 3   |
| <b>Secondary Relief Valves</b>  |   |                                 |                    |   |
| 21215214  | 13110217  | SRV 30 PSI                      | Liberator - 20 PSI |   |
| 21215227  | *13110225   | SRV 65 PSIG                     | Liberator - 50 PSI | *Was used also on Hi<br>Flow Strollers<br>(manufactured until<br>1/27/2020) |
| <b>Economizer Regulators</b>  |   |                                 |                    |   |
| 21341644  | 10531833LAN   | Econ. Regulator 20              | Liberator - 20 PSI |   |
| 21341648  | 10670260  | Econ. Regulator 50              | Liberator - 50 PSI |   |
| 21341652  | 10670251  | Econ. Regulator 20<br>PSI Japan | Liberator - 20 PSI |   |

Please refer to Service Bulletin PN 21495031.

## Helpful Hints & FAQs

### Operating Pressure Test – NewLife®

The operating pressure test is a useful diagnostic tool to help troubleshoot the high and low pressure alarms. This test can also help you narrow the cause of low O<sub>2</sub> concentration. Follow the instructions below to correctly perform the operating pressure test.

- 1) Turn the unit off and unplug the power cord.
- 2) Remove unit's left side panel.
- 3) Locate the pressure test port location (black tube with brass plug in the end) Remove plug and using a pressure test port adapter (KI257-1), connect the pressure gauge to the test port.
- 4) Plug unit back in.
- 5) Turn unit on and set flow to the maximum flow setting (5, 8 or 10 Liter depending on model).
- 6) Allow unit to run for at least 5 minutes.
- 7) Observe the maximum and minimum readings on the test gauge during the PSA cycle.



### Product Maximum and Minimum Pressure Specifications

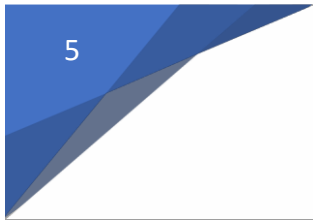
| Model        | Max   | Min   |
|--------------|-------|-------|
| Elite        | 25psi | 10psi |
| Intensity 8  | 34psi | 10psi |
| Intensity 10 | 36psi | 20psi |

### Product Regulator Check and Setting – NewLife

The product regulator is factory-set at 7 PSIG (48kPa) for the NewLife Elite®, 20 PSIG (138 kPa) for the NewLife Intensity® (8 and 10), and should not require adjustment. To check for proper adjustment of the product regulator, take the following steps:

#### **Procedure A:** NewLife Elite

1. Set the ON/OFF switch to the ON position.
2. Allow the unit to run for five minutes.
3. Turn the flowmeter adjustment knob counterclockwise until it stops (wide open).
4. The flowmeter ball should center itself on the 5.5 LPM line. If not, the product regulator needs to be adjusted.



**Procedure B:** NewLife Intensity 8 and Newlife Intensity 10

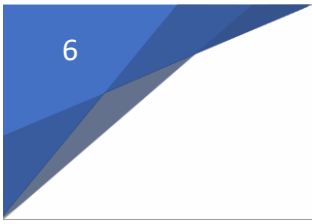
1. Install outlet pressure test kit (TU131-1 for Newlife Intensity 8 or TU131-2 for Newlife Intensity 10) to the outlet of the NewLife unit.
2. Set the unit's ON/OFF power switch to the ON position.
3. Allow the unit to run for five minutes.
4. Turn the flowmeter adjustment knob counterclockwise until it stops (wide open).
5. The outlet pressure should measure 20 PSIG. If the outlet pressure is not at 20 PSIG, the product regulator needs to be adjusted.



If it is not possible to regulate the pressure, then follow the instructions in the technical service manual as there may be a requirement to replace the regulator.

## CAIRE Website

The CAIRE website can be found at the following address <https://www.caireinc.com/>. For our current documents - brochures, parts lists, manuals, follow the link to our Knowledge Center located here: <https://www.caireinc.com/providers/business-support-programs/knowledge-center/>



## Document update

We advise our valued customers to monitor and check that they are using the most recent revision of any documents for the model of equipment they have. The following documents have been updated in March 2021.

| Document Number | Document Title                        | Revision |
|-----------------|---------------------------------------|----------|
| 10662631        | Sprint & Stroller TSM                 | P        |
| 11805120        | Spirit TSM                            | K        |
| 13350704        | LIBERATOR G4 TSM                      | L        |
| 14883289        | HELIOS RESERVOIR TSM                  | K        |
| 20559263        | Companion Reservoir TSM               | G        |
| 20562190        | HELIOS PORTABLES TSM                  | F        |
| 20562220        | Companion Portables TSM               | F        |
| ML-CONC0173-6   | Companion 5 cutsheet CE certified POR | B        |
| ML-CONC0173     | Companion 5 cutsheet CE certified ENG | B        |
| ML-CONC0173-2   | Companion 5 cutsheet CE certified GER | B        |
| ML-CONC0173-1   | Companion 5 cutsheet CE certified FRE | B        |
| ML-CONC0173-5   | Companion 5 cutsheet CE certified ITL | B        |

## Med Tips Distribution!

**Need to update your Med Tips contact information or add a member of your team to our distribution list? Email us today with your new information!**

### CONTACT:

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# SERVICE BULLETIN

PN: 21495031

**RELEASE DATE:** June 8, 2020  
**REVISION DATE:** July 28, 2020 (Rev. B)

**MODEL:** Liberator® Reservoir, Sprint™, Stroller®, and Hi Flow Stroller®

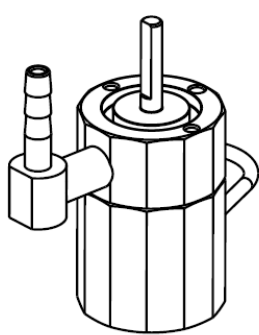
**ISSUE:** Availability of Spare Flow Control Valves, Secondary Relief Valves, Manifolds, and Economizers

**NOTES:** This bulletin is meant to clarify the service part usage for previous design and current design liquid oxygen portables and reservoirs. Refer to the tables below for the appropriate service part for a given device and the example figures for previous vs. current parts.

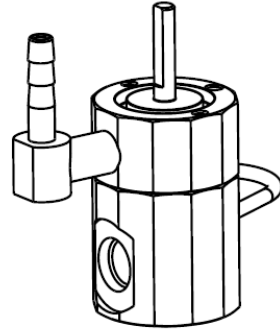
**Table 1: Portables**

| Current Design<br>(manufactured<br>after 1/27/2020)<br>Beginning S/N<br>CBB3120041085 | Previous<br>Design<br>(manufactured<br>before<br>1/27/2020) | Type Valve                                  | Model                     | Notes     |
|---|---|---|---------------------------|-----------|
| <b>Flow Control Valves</b>  |   |   |                           |           |
| 11014539TS  | 11014521T   | FCV 20 PSI - 6 LPM                          | Sprint/Stroller W/Meter   |           |
| 14812860TS  | 14034703T   | FCV 20 PSI - 15 LPM                         | Hi Flow Stroller W/Meter  |           |
| 21366017S   | 14700235T   | FCV 20 PSI - 2 LPM                          | Sprint/Stroller W/Meter   | Pediatric |
| 11014539TS  | 11014539TS  | FCV 20 PSI - 6LPM                           | Sprint/Stroller W/Scale   |           |
| 14812860TS  | 14812860TS  | FCV 20 PSI - 15 LPM                         | Hi Flow Stroller W/Scale  |           |
| 14700235T   | 14700235T   | FCV 20 PSI - 2 LPM                          | Sprint/Stroller W/Scale   | Pediatric |
| <b>Secondary Relief Valves</b>  |   |   |                           |           |
| 10491253T   | 13110225  | SRV 30 psi new/ 65 psi old                  | Hi Flow Strollers         |           |
| <b>Manifolds</b>  |   |   |                           |           |
| 21495020S   | 10564619S   | Manifold Assy 1.2L SF<br>SVCE               | Stroller/Hi Flow Stroller |           |
| 21495021S   | 10812918S   | Manifold Assy 1.2L W/Auto<br>Close VV, SVCE | Stroller/Hi Flow Stroller |           |
| 21495022S   | 10812900S   | Manifold Assy 1.2L,<br>Germany, SVCE        | Stroller/Hi Flow Stroller |           |
| 21495026S   | 10597787S   | Manifold Assy 1.2L TF,<br>SVCE              | Stroller/Hi Flow Stroller |           |

**NOTE:** Portable Scale units in Table 1 did not undergo the FCV change. Included for reference.

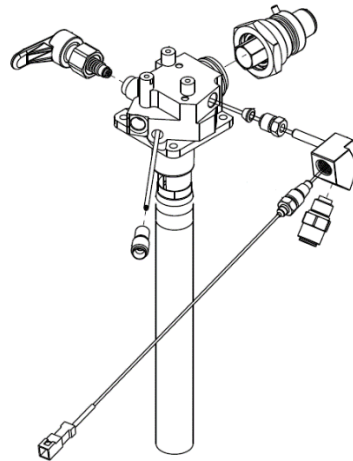
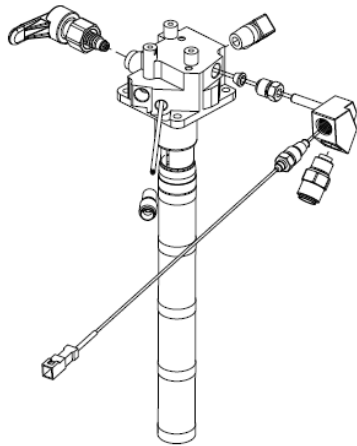


11014539T  
FCV 20PSI 0-6 LPM G3 PORT TPED  
14812860T  
FCV 20PSI 0-15 LPM G4 PORT



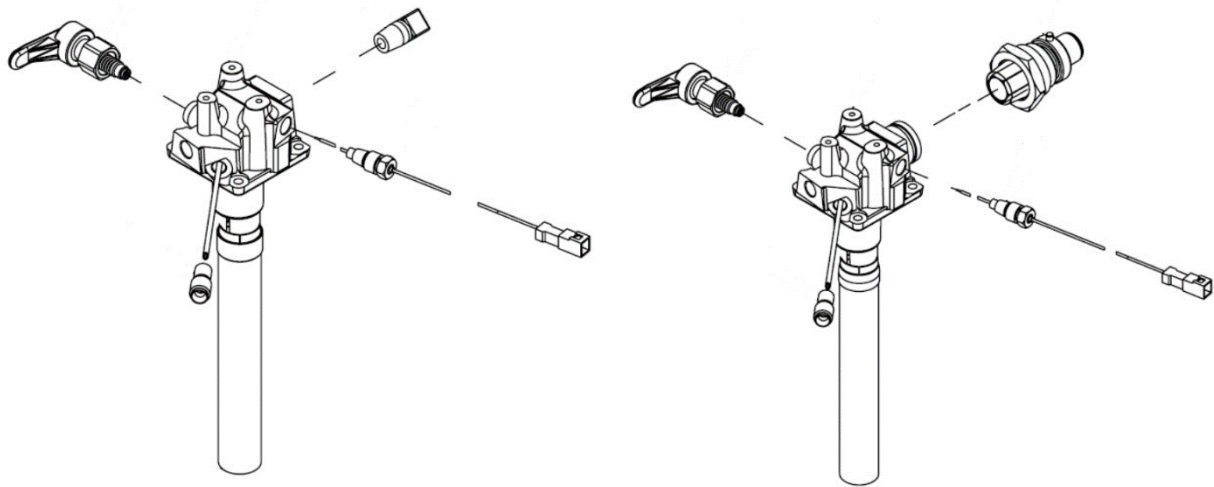
11014521T  
FCV 20PSI 0-6 LPM G3 PORT TPED  
14034703T  
FCV 20PSI 0-15 LPM G4 PORT

**Figure 1: Portable Flow Control Valves**



**Figure 2: Manifold Assembly - Current version**

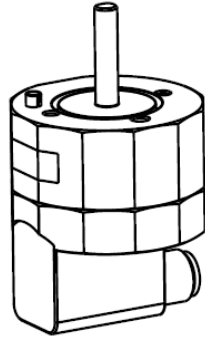




**Figure 3: Manifold Assembly - Previous Version**

**Table 2: Liberator**

| <b>Current Design<br/>(manufactured<br/>after 4/1/2020)<br/>Beginning S/N<br/>CBB3020140001</b> | <b>Previous<br/>Design<br/>(manufactured<br/>before<br/>4/1/2020)</b> | <b>Type Valve</b>               | <b>Model</b>       | <b>Notes</b>   |
|---|---|---------------------------------|--------------------|--|
| <b>Flow Control Valves</b>  |   |                                 |                    |  |
| 21449808S   | 13110145  | FCV 20 PSI - 15 LPM             | Liberator - 20 PSI | 16 Pos. Gen 4  |
| 21449806S   | 13110153  | FCV 50 PSI - 15 LPM             | Liberator - 50 PSI | 16 Pos. Gen 4  |
| 21494787S   | 14700243T   | FCV 20 PSI - 2 LPM              | Liberator - 20 PSI | Pediatric  |
| N/A   | 10480511T   | FCV 20 PSI - 6 LPM              | Liberator - 20 PSI | 12 Pos. Gen 3  |
| N/A   | 11018986T   | FCV 20 PSI - 15 LPM             | Liberator - 20 PSI | 12 Pos. Gen 3  |
| <b>Secondary Relief Valves</b>  |   |                                 |                    |  |
| 21215214  | 13110217  | SRV 30 PSI                      | Liberator - 20 PSI |  |
| 21215227  | *13110225   | SRV 65 PSIG                     | Liberator - 50 PSI | *Was Used also on Hi Flow Strollers (manufactured until 1/27/2020) |
| <b>Economizer Regulators</b>  |   |                                 |                    |  |
| 21341644  | 10531833LAN   | Econ. Regulator 20 psi          | Liberator - 20 PSI |  |
| 21341648  | 10670260  | Econ. Regulator 50 PSI          | Liberator - 50 PSI |  |
| 21341652  | 10670251  | Econ. Regulator 20 PSI<br>Japan | Liberator - 20 PSI |  |
| <b>Bracket Assembly</b>   |   |                                 |                    |  |
| 13307335S   | 21495392S   | Bracket Lib S/A G4 Svce         | Liberator          |  |
| <b>Economizer Assembly</b>  |   |                                 |                    |  |
| 13277851S   | 21495393S   | Economizer S/A 20PSI Svce       | Liberator - 20 PSI |  |

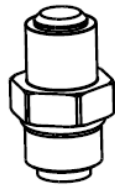


21449808  
FCV 20PSI 0-15 LPM G4 BASE

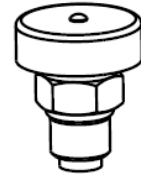


13110145  
FCV 20PSI 0-15 LPM G4 BASE

**Figure 4: Liberator Flow Control Valves**

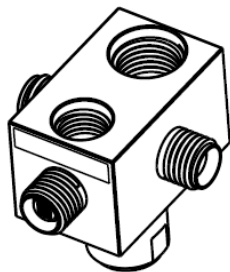


21215214  
RV 9/16-20UNF 30PSI TPED

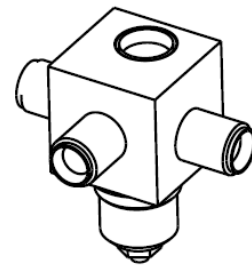


13110217  
RV 7/16-20UNF 30PSI TPED

**Figure 5: Liberator Secondary Relief Valves**



21341644  
REGULATOR 20PSI ECON W/PRV-SRV PORT



10531833LAN  
REGULATOR 20PSI ECON W/PRV PORT

**Figure 6: Liberator Economizer Regulators**

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